#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

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# SOURCE INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** SIR-002922

Address: 333 Burma Road **Date Inspected:** 29-Oct-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Dao, Shangha

**Quality Control Contact:** Don Walton **Quality Control Present:** Yes No

N/A **Material transfer:** Yes **Sampled Items:** Yes No N/A No **Stock Transfer:** N/A OK to Cut: N/A Yes No Yes No **Rebar Test Witness:** N/A **Delayed/Cancelled:** N/A Yes No Yes No

Other: Coatings Inspection

**Bridge No:** 34-0006 Office, Sub-Assemblies, TL3S, TL3E, L10E a **Component:** 

**Bid Item:** Lot No: 77, 78, 79

#### **Summary of Items Observed:**

n this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Kenneth W. Cason Jr. arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections is to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

#### Tower

TL3S Tower External Surface, (NOI Number T1392): The Interzinc 22 undercoat on external surfaces was tested in accordance with ASTM D4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers. Observed values were well above minimum required values with an average pull value of approximately 8.00 MPa. ZPMC will proceed to the next check point.

TL3N Tower External Surface, (NOI Number T1393): The external finish coat on tower TL3N was tested for specified Dry Film Thickness (DFT) in accordance with SSPC PA-2 and specification requirements. Also present was Caltrans Engineer (CT), Chris Havel, who verified the finish coat in accordance with specifications and with emphasis to coating gloss (shine) value compliance. ZPMC, and ABF Quality Control/ Quality Assurance (QA/QC) accepted the finish coat and recorded the values for DFT's. CT did note some minor deficiencies on back sides of exterior L splices. This area will be repaired/touched up prior to tower shipping.

TL3E Tower External Surface, (NOI Number T1399): The Interzinc 22 undercoat on Tower External surface was tested in accordance with SSPC-SP 1 (Surface Cleanliness), MEK Rub test in accordance with ASTM D4752

## SOURCE INSPECTION REPORT

(Continued Page 2 of 2)

Standard Test Method for Measuring MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub. Observed results were less than the required rating of 4. ABF and ZPMC rejected surface preparation due to failed MEK test. ZPMC will re-work and re-submit for verification prior to proceeding to next check point.

**OBG** 

L10E CB Terminal External Remain Areas and Terminal External Bottom Plate, (NOI Number 4672): In preparation for mist coat installation of Interfine 979 Polysiloxane, the external surface of L10E Terminal External Remain Areas and Terminal External Bottom Plate was tested in accordance with SSPC-SP 1 (Surface Cleanliness), x2 MEK Rub test in accordance with ASTM D4752 Standard Test Method for Measuring MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub and Bresle Method to assess the level of soluble salts using a patch, distilled water and a conductivity gauge in accordance ISO 11127-6 and ISO 11127-7. All inspection results were recorded as acceptable and ZPMC proceeded to next check point.

L10W CB Terminal External Surface Side Plate, (NOI Number 4736): In preparation for mist coat installation of Interfine 979 Polysiloxane, the external surface of L10W CB Terminal External Surface Side Plate was tested in accordance with SSPC-SP 1 (Surface Cleanliness), x3 MEK Rub test in accordance with ASTM D4752 Standard Test Method for Measuring MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub and Bresle Method to assess the level of soluble salts using a patch, distilled water and a conductivity gauge in accordance ISO 11127-6 and ISO 11127-7. X2 MEK rub test recorded values of 4 and 5 and x1 test on FL-3 area recorded a value less than 4. Due to failed MEK test ABF and ZPMC rejected. ZPMC will re-work and resubmit for inspection prior to proceeding to next check point.

Office

Attend to report writing and photo documentation.

Note: Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Cason, Kenneth	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer